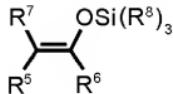


Amendments to the Claims

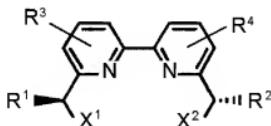
1 (currently amended). A method for producing an optically active hydroxymethylated compound, comprising reacting a silicon enolate and formaldehyde, in the presence of a catalyst, in an aqueous solution or a mixed solvent of water and an organic solvent,

wherein the silicon enolate is represented by the following formula (chemical formula 2):



wherein R⁵ represents a hydrogen atom or an alkyl group and R⁶ represents an alkyl group, an alkyl aryl group, or an aryl group, to R⁷ are hydrogen atoms, aliphatic hydrocarbon groups, monocyclic or polycyclic alicyclic hydrocarbon groups, monocyclic or polycyclic aromatic hydrocarbon groups or heterocyclic groups where R⁶ is not a hydrogen atom, R⁵ and R⁷ are not identical, provided that R⁵ and R⁶ may together with the carbon atoms to which they are bonded form a indene, 1,2-dihydronaphthylene, cyclohexene, cycloheptene or cyclopentene ring, R⁷ represents a hydrogen atom, an alkyl group, and alkyl aryl group, or an aryl group, and the R⁸ groups, which may be identical or different, are hydrocarbon each alkyl groups, and

the catalyst is obtained by mixing a ligand or its symmetric isomer and a Lewis acid, wherein the ligand is represented by the following formula (chemical formula 1):



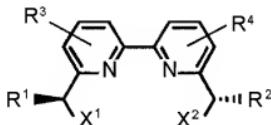
wherein each R¹ and R² group, which may be identical or different, are hydrogen atoms, is an alkyl group groups or an aryl groups group, provided that at least one of R¹ and R² contains at least three carbon atoms, the R³ and R⁴ groups, which may be identical or different, are each hydrogen atoms, alkyl groups containing one to four carbon atoms or alkoxy groups, the X¹ and X² groups, which may be identical or different, are each -OH or

-OMe represented by -OR^9 , -SR^{10} or -NHR^{11} , wherein R^9 to R^{11} are hydrogen atoms or alkyl groups, and

the Lewis acid is represented by MY_n , wherein M is Cu, Zn, Fe, Sc or a lanthanoid element, Y is a halogen atom, OAc, OCOCF₃, ClO₄, SbF₆, PF₆ or OSO₂CF₃ and n is 2 or 3.

2 (canceled).

3 (withdrawn). A catalyst obtained by mixing a ligand or its symmetric isomer and a Lewis acid, wherein the ligand is represented by the following formula (chemical formula 1):



wherein R¹ and R², may be identical or different, are hydrogen atoms, alkyl groups or aryl groups, at least one of R¹ and R² contains at least three carbon atoms, R³ and R⁴, may be identical or different, are hydrogen atoms, alkyl groups containing one to four carbon atoms or alkoxy groups, X¹ and X², may be identical or different, are represented by -OR⁹, -SR¹⁰ or -NHR¹¹, wherein R⁹ to R¹¹ are hydrogen atoms or alkyl groups, and

the Lewis acid is represented by MY_n , wherein M is Cu, Zn, Fe, Sc or a lanthanoid element, Y is a halogen atom, OAc, OCOCF₃, ClO₄, SbF₆, PF₆ or OSO₂CF₃ and n is 2 or 3.